

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed January 24, 2005. Reconsideration and allowance of the application and presently pending claims 1-21 are respectfully requested.

1. Present Status of Patent Application

Upon entry of the amendments in this response, claims 1-21 remain pending in the present application. It is believed that the foregoing amendments and additions to the Specification add no new matter to the present application. Since no claim amendments are made herewith, the claims remain in the form as originally presented.

2. Acknowledgement of Allowed Claims and Subject Matter

Applicants acknowledge the Examiner's conclusion that the subject matter of claims 4, 6, 8-12 and 17-20 is allowable, as noted in paragraph 3 of the Office Action. However, Applicants have not amended these claims 4, 6, 8-12 and 17-20 in this response because the Applicants believe, for the reasons detailed below, that the parent claims from which claims 4, 6, 8-12 and 17-20 depend are allowable over the cited art.

3. Response to Rejection of Claims 1-3, 5, 7, 15 and 21 Under 35 U.S.C. §103

In the Office Action, claims 1-3, 5, 7, 15 and 21 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Kagami* (U.S. Patent 5,394,369), hereinafter *Kagami*, in view of *Lehmann et al.* (U.S. Application 2004/0140835), hereinafter *Lehmann*. It is well-established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly or explicitly, all elements/features/steps of the claim at issue. See, e.g., *In Re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988), and *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981).

a. Independent Claim 1

Applicants respectfully submit that independent claim 1 is allowable for at least the reason that the proposed combination of *Kagami* in view of *Lehmann* does not disclose, teach, or suggest at least the emphasized features of claim 1 below.

1. A system which indicates semiconductor device fabrication defects comprising:

test data corresponding to testing of a *plurality of fuses*, each one of the plurality of fuses *residing on a different one of a plurality of semiconductor devices* and each one of the *plurality of fuses having a common location* on the semiconductor devices; and

a memory with logic configured to determine from the test data which of the plurality of fuses are defective fuses, and further configured to specify on an output report *the common location of the determined defective fuses when a number of the defective fuses are at least equal to a predefined portion of the plurality of fuses*.

Kagami is limited to, at most, a “semiconductor memory device which can perform a parallel test upon a predetermined number of memory cells by using a degenerate addresses of a plurality of first addresses each corresponding to one memory cell” (Abstract). *Kagami* discloses “a prior art 4 Mbit DRAM on which a parallel test can be carried out” (Col. 2, lines 63-64). The *Kagami* Abstract provides further clarification by stating “a semiconductor memory device can perform a parallel test upon a predetermined number of memory cells by using a degenerative address of a plurality of first addresses each corresponding to one memory cell.” *Kagami* further discloses that “in the exclusive OR circuit 4, if at least one of the read data is different from the predetermined write data ‘1’, the exclusive OR circuit 4 generates a ‘1’ signal indicating the existence of a defective memory cell *which should be replaced by a redundancy memory cell*” (Col. 3, lines 36-41, emphasis added). However, nowhere does *Kagami* disclose, teach, or suggest testing a *plurality* of fuse devices “*residing on a different one* of a plurality of semiconductor devices” as emphasized above in claim 1.

Similarly, *Lehmann* does not disclose, teach, or suggest testing the above-emphasized features of claim 1. At most, *Lehmann* discloses “a test procedure that may analyze the margins of a fuse latch during the fuse read operations.”

Accordingly, Applicants believe that the proposed combination of *Kagami* in view of *Lehmann* fails to disclose, teach or suggest the feature of “testing of a plurality of fuses, each one of the plurality of fuses residing on a *different one* of a plurality of semiconductor devices and each one of the plurality of fuses having a *common location* on the semiconductor devices” as emphasized above in claim 1.

Therefore, for at least this reason alone, a *prima facie* case establishing an obviousness rejection by *Kagami* in view of *Lehmann* has not been made. Thus, claim 1 is not obvious under proposed combination of *Kagami* in view of *Lehmann*, and the rejection should be withdrawn.

Furthermore, nowhere in the proposed combination of *Kagami* in view of *Lehmann* is there any disclosure, teaching or suggestion of the feature of specifying in the output report the above described common location of failed fuses “when the number of defective fuses are at least equal to a predefined portion of the plurality of fuses” as emphasized above in claim 1. There is simply no such report in *Kagami*, which is limited to “indicating the existence of a defective memory cell *which should be replaced by a redundancy memory cell*” (Col. 3, lines 39-41, emphasis added). Even if *Kagami* is modified by *Lehmann*, the proposed combination completely fails to teach, disclose or even suggest specifying “when the number of defective fuses are at least equal to a predefined portion of the plurality of fuses” as emphasized above in claim 1. Therefore, for at least this reason alone, a *prima facie* case establishing an obviousness rejection by *Kagami* in view of *Lehmann* has not been made. Thus, claim 1 is not obvious under proposed combination of *Kagami* in view of *Lehmann*, and the rejection should be withdrawn.

b. Claims 2-3 and 5

Because independent claim 1 is allowable over the cited art of record, dependent claims 2-3 and 5 (which depend from independent claim 1) are allowable as a matter of law for at least the reason that the dependent claims 2-3 and 5 contain all features/elements of independent claim 1. See, *e.g.*, *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Accordingly, the rejection to these claims should be withdrawn.

c. Independent Claims 7 and 21

Applicants respectfully submit that independent claims 7 and 21 are allowable for at least the reason that the proposed combination of *Kagami* in view of *Lehmann* does not disclose, teach, or suggest at least the emphasized features of claim 7 below. Claim 21 recites substantially identical features as claim 7.

7. A method for indicating semiconductor device fabrication defects, the method comprising:

retrieving test data corresponding to test results from a plurality of fuses, each one of the plurality of fuses residing on a different one of a plurality of semiconductor devices and *each one of the plurality of fuses having a **common location on the semiconductor devices***;

determining from the test data which of the plurality of fuses are defective fuses; and

specifying on an output report the common location of the determined defective fuses when a number of the defective fuses are at least equal to a predefined portion of the plurality of fuses.

As noted above in the arguments for allowability of claim 1, the proposed combination of *Kagami* in view of *Lehmann* fails to disclose, teach or suggest the feature of “retrieving test data corresponding to test results from a plurality of fuses, each one of the plurality of fuses residing on a *different one* of a plurality of semiconductor devices and *each one of the plurality of fuses having a common location on the semiconductor devices*” as emphasized above in claims 7 and 21. Therefore, for at least this reason alone, a *prima facie* case establishing an obviousness rejection by *Kagami* in view of *Lehmann* has not been made. Thus, claims 7 and 21 are not obvious under proposed combination of *Kagami* in view of *Lehmann*, and the rejection should be withdrawn.

Furthermore, the proposed combination of *Kagami* in view of *Lehmann* fails to disclose, teach or suggest the feature of “specifying on an output report the common location of the determined defective fuses when a number of the defective fuses are at least equal to a predefined portion of the plurality of fuses” as emphasized above in claims 7 and 21. The Examiner is respectfully referred above to the arguments for allowability of claim 1 which shows the failure of the proposed combination of *Kagami* in view of *Lehmann* to disclose, teach or suggest this above-emphasized feature of claims 7 and 21. Therefore, for at least this reason alone, a *prima facie* case establishing an obviousness rejection by *Kagami* in view of *Lehmann* has not been made. Thus, claims 7 and 21 are not obvious under proposed combination of *Kagami* in view of *Lehmann*, and the rejection should be withdrawn.

d. Claim 15

Because independent claim 7 is allowable over the cited art of record, dependent claim 15 (which depends from independent claim 7) is allowable as a matter of law for at least the reason that the dependent claim 15 contains all features/elements of independent claim 7. Accordingly, the rejection to this claim should be withdrawn.

4. Response to Rejection of Claims 13, 14 and 16 Under 35 U.S.C. §103

In the Office Action, claims 13, 14 and 16 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Kagami* (U.S. Patent 5,394,369), hereinafter *Kagami*, in view of *Lehmann et al.* (U.S. Application 2004/0140835), hereinafter *Lehmann*, and further in view

of *Feinstein* (U.S. Patent 6,701,003), hereinafter *Feinstein*. It is well-established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly or explicitly, all elements/features/steps of the claim at issue. See, e.g., *In Re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988), and *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981).

a. Claims 13 and 14

Because independent claim 7 is allowable over the cited art of record, dependent claims 13 and 14 (which depend from independent claim 7) are allowable as a matter of law for at least the reason that the dependent claims 13 and 14 contain all features/elements of independent claim 7. Accordingly, the rejection to these claims should be withdrawn.

b. Claim 16

Claim 16 recites substantially identical features as the above-emphasized features of claims 7 and 21. The Examiner is respectfully referred above to the arguments for allowability of claims 7 and 21 which demonstrate that a proposed combination of *Kagami* in view of *Lehmann* fails to disclose, teach or suggest the feature of “retrieving test data corresponding to test results from a plurality of fuses, each one of the plurality of fuses residing on a different one of a plurality of semiconductor devices and *each one of the plurality of fuses having a common location on the semiconductor devices*” as recited in claim 16. Furthermore, Examiner is respectfully referred above to the arguments for allowability of claims 7 and 21 which demonstrate that a proposed combination of *Kagami* in view of *Lehmann* fails to disclose, teach or suggest the feature of “specifying on an output report the common location of the determined defective fuses when a number of the defective fuses are at least equal to a predefined portion of the plurality of fuses” as emphasized above in claim 16.

Applicants assert that *Feinstein* does not teach any of the above-emphasized features of claim 16. *Feinstein* is limited to disclosing “printing an error report showing defective components” as alleged by the Office Action at page 5. Therefore, even if *Kagami* and *Lehmann* are modified by *Feinstein*, the proposed combination does not teach the above-emphasized limitations of claim 16. Therefore, a *prima facie* case establishing an obviousness rejection by *Kagami* in view of *Lehmann*, and further in view of *Feinstein* has not been made.

Thus, claim 16 is not obvious under proposed combination of *Kagami* in view of *Lehmann*, and further in view of *Feinstein*, and the rejection should be withdrawn.

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 1-21 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned agent at (770) 933-9500.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read 'Raymond W. Armentrout', is written over a horizontal line.

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